

## Abstract

A discharge voltage detecting unit 7 detects a discharge voltage and determines an average discharge voltage in a specified period of time. An optimum machining condition computing unit 8 determines a discharge current that makes an average discharge voltage detected by the discharge voltage detecting unit equal to an average discharge voltage when a new machining liquid is used and determines discharging time, non-operating time, and a servo reference voltage depending on the determined discharge current from the relational equations with a discharge current, discharging time, non-operating time, and a servo reference voltage that are stored in the machining condition data base storing unit 9 and establish optimum machining conditions and controls a servo 4 and a machining electrode 5 under the optimum machining conditions by a servo control unit 6 at the time of machining.